

MICHIGAN FARMER.

Devoted to Agriculture, Horticulture, and Domestic and Rural Affairs.

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Culture of Madder.

From Report of Commissioner of Patents 1847.

DYER'S MADDER—(*Rubia Tinctoria*.)

QUANTITY IMPORTED—ITS CULTIVATION IN THE

U. S. BY M. B. BATEHAM.

HON. EDMUND BURKE, Comm'r Patents, Washington.

DEAR SIR:—I take pleasure in complying with your request, to furnish such information as I possess in relation to the culture of dyer's madder in this state.

It will be remembered that in 1843, I furnished to your predecessor in office a communication on this subject (published with report of commissioner of patents for 1843,) giving an account of the very successful experiments of Mr. Joseph Swift, near Birmingham, Ohio, who is probably the most extensive cultivator of madder in the Union.

His first crop of which particular notice was given consisted of nine acres. It was harvested in the fall of 1842, after being allowed four seasons growth, and produced at the rate of 2000 pounds per acre on his best land. From a careful estimate of all the expenses attending the cultivation of this crop, and its preparation for market, Mr. S. furnished me the following statement of the results:

The amount of labor required, including the preparation of land, planting, cultivating, digging, clearing, threshing, &c., was from eighty to one hundred day's work per acre, (including team work.) The outlay for buildings, fixtures &c., did not exceed, in all, fifty dollars.

The value of the crop was at the rate of fifteen cents per pound, at which price he sold most of it, notwithstanding the circumstance of its being unknown to purchasers, and having to encounter the prejudice that usually exists in such cases.

The result, then, in figures, fairly stated, stands thus, for an acre of good land properly managed:

By 2000 lbs of madder at 15 cts per lb. \$300.00

Contra—To 100 days' work at 75 cts.

per day, \$75.00

Use of land 4 years at \$4 per year 16.00

Grinding, packing, &c. 9.00

100.00

Leaving a nett profit per acre of \$200.00

The quality of this madder was pronounced superior to most of the imported: and no diffi-

culty was found in selling it wherever it became known. The price of madder in the western cities (and also at the east I believe,) has varied during the past five years, from 14 to 18 cents per pound; the better qualities often selling at 18 to 20 cents, at wholesale.

The yield per acre, Mr. S. is now convinced can be increased to 3000 lbs; and it is better to harvest the crop at the end of three years' growth, than to allow a longer period;—these improvements will of course, nearly double the amount of profits.

The kind of labor required in cultivating madder, can most of it be performed by a cheap class of hands, such as German immigrants; and hence the business can be most advantageously carried on where such laborers can be readily obtained whenever wanted, without having to furnish them constant employment. The vicinity of our western cities is particularly favorable on this account; and the lack of this advantage has prevented Mr. Swift from engaging in the business as largely as he would otherwise have done.

Casualties.—Madder appears to be quite as certain a crop as most others in this country. It is entirely exempt from injury by insects—and also by the weather, after the first season's growth. The plant is perfectly hardy—stands frost well, and also heat and drought—excepting that during the first winter after planting there is danger on some soils of the ground heaving by frost so as to expose the roots to the air, and cause them to winter kill, as is the case with wheat, &c. There is also danger, in this climate, of a severe drouth, occurring immediately after planting, and destroying the sets before they have commenced to grow. I suffered considerable loss from both of these causes the past year, in making an experiment with madder near this city, (Columbus.) Mr. Swift, also in the spring of 1843, lost nearly the whole of his new plantation from the effects of a severe drouth just after planting. This occurrence left so few roots alive, that it was two years before he obtained a sufficient quantity of sets to renew his plantation; and this will explain why it is that he harvested no crop for four or five years until the past year, as he neglected to make any new plantation until after the first experiment was completed.

Propagation.—In this country madder produces very little if any perfect seed. In Europe seed is produced, and it has on several

occasions been imported and sold to some extent in this country, but I have not heard of a single instance where it has been made to vegetate freely, if at all. In fact I am informed that in Holland and France the madder growers never depend on seed, but plant sets (pieces of roots) as is done by Mr. Swift and others in this country. This adds considerably to the expense and difficulty of commencing the business.

Directions for Cultivating Madder.

Having visited Mr. Swift on several occasions and received from him both verbal and written instructions and observations on madder culture and having also witnessed some experiments of other persons in this business, I will now give, as well as I am able, concise and practical instructions in the art of cultivating madder, in the hope that I may thereby be instrumental of contributing in a small degree to the prosperity and independence of our beloved country by causing one article of extensive use to be produced at home instead of imported from abroad.

Soil and Preparation.—The kind of soil on which Mr. Swift and others in this state grow madder, is river bottom land; a deep rich loam with a large portion of vegetable matter; not wet or liable to be overflowed. From an experiment he has tried, however, Mr. Swift is of the opinion that good upland soil, not so clayey as to become hard in summer, is nearly or quite as suitable as bottom lands, provided it be well enriched with manure. He also thinks that soils containing lime will produce a better quality of madder than such as are destitute of lime; but of this he is not certain. The land should be as free as possible from grass or weeds, stones, roots, &c., and if cultivated in hoed crops for a year or two previous, all the better.

The land should be plowed as deep as possible in the fall, and if clayey, be laid up in ridges so as to be mellow in spring; and as early in spring as the ground will permit, apply a good dressing of barn-yard manure—upland soil would be improved by hauling on also decomposed swamp earth or leaf-mould from the woods; the amount of enriching to be proportionate to the previous condition of the land. Then plow deep, and harrow till quite smooth, and the ground is ready for planting.

Planting.—With a single horse plough, strike small straight furrows, say three inches deep, and eight feet apart, the whole length of the field. In these furrows drop the roots, then cover with hoes, about two inches in depth. About ten bushels of sets are required for an acre.

After Culture.—As soon as the plants make their appearance, go over the ground between the rows with a cultivator, and with hoes along the rows, carefully, so as to destroy all the weeds without injuring the plants. Repeat the cultivating and hoeing as often as weeds make their appearance, as it will save much labor the sec-

ond year if the ground is kept clean the first.

If any vacancies appear in the rows, by the roots failing to grow, take up portions of the strongest roots and transplant to fill up; this should be done in May or June, when the plants have become well rooted.

As soon as the plants are twelve or fifteen inches high; the tops are to be bent down on to the surface of the ground, and all except the tip end covered with earth shoveled from the middle of the vacant spaces; bend the shoots outward in both directions, so as in time to fill the vacant space except about two feet wide. After the first time covering, repeat the weeding when necessary, and run a cultivator or single horse plow through the alleys several times, to keep the earth clean and mellow. As soon as the plants again become twelve or fifteen inches high, bend down and cover them as before; repeat the operation as often as necessary, which is commonly three times the first season; the last time may be as late as September, or latter if no frost occur. By covering the tops in this manner, they change to roots, and the design is to fill the ground as full of roots as possible.

When the vacant space is full, there will be little chance for weeds to grow; but all that appears must be pulled out.

The second year.—Keep the plants free from weeds; plow the alleys and cover the tops as before directed, two or three times during the season. The alleys will now begin to form deep and narrow ditches, and if it becomes difficult to obtain good earth for covering the tops, that operation may be omitted after the second time this season. Care should be taken when covering the tops to keep the outer edges of the beds as high as the middle; otherwise the water from heavy showers will run off, and the crop suffer from drouth.

The third year.—Very little labor or attention is required, until digging time. The plants will now cover the whole ground. If any weeds are seen, they must be pulled out; otherwise their roots will cause trouble when harvesting the madder. The crop if well attended and on suitable soil, will be fit to dig at the end of the third year; but if otherwise it will pay better to be allowed four season's growth.

Digging and Harvesting.—This should be between the 20th of August and the 20th of September, or before bad weather is to be apprehended. Take a sharp shovel, and cut off and remove the tops with* half an inch of the surface of the earth; then take a plough of the largest size, with a sharp coulter, and a double team, and plough the bed beam deep, turning the furrows outwards; remove this earth with forks or shovels, as deep as plowed, on to the plowed ground adjoining, stirring it well with forks, and picking out all the roots; then plow

* In the "Report" this word is printed "within" instead of "with".

the bed again, beam deep, (if the roots have descended as far,) and stir the earth with forks as plowed; to get out all the roots.

Washing and drying.—As soon as possible after digging, take the roots to some running stream to be washed. If there is no running stream convenient, it can be done at a pump. Take large round sieves, (riddles,) two and a half or three feet in diameter, with the wire about as fine as wheat sieves; or what is better procure from a hardware store sufficient screw wire of the right fineness and make frames or boxes about three feet long, one foot deep, and the width of the wire; on the bottom of which nail the wire. In these sieves or boxes put about half a bushel of roots at a time, and stir them well in the water, pulling the bunches apart, so as to wash them clean; then, having a platform at hand, lay them on it to drain. A couple will wash, in this way, 125 to 150 bushels per day, in a convenient stream of running water.

Next, have a sufficient number of platforms made of common light boards, with cleats nailed across the under side, putting two or three boards together, so as to make them about four feet wide, and twelve or fourteen feet long; on these, the roots are to be dried in the sun as follows: Take the roots to a convenient place, not far from the house, then spread them on the platforms about three or four inches thick; place the platforms side by side, in rows east and west and with their ends north and south, leaving room to walk between the rows. Elevate the north ends of the platforms about eighteen inches, and the south ends about six inches from the ground, putting poles or sticks to support them; this will greatly facilitate drying. After the second or third day drying, the madder must be protected from the dews at night, and from rain by placing the platforms one upon another, to a convenient height, and covering the uppermost one with boards. Spread them out again in the morning, or as soon as danger is over. Five or six days of ordinary fine weather will dry the madder sufficiently, when it may be put away in a barn or other dry place, till it is convenient to kiln-dry and grind it, which may be done at any time during fall or winter, when there is prospect of fine weather. In damp weather the roots will absorb moisture from the atmosphere, while breaking and hauling to mill, so as to render it difficult to grind.

Kiln-drying.—The size and mode of constructing the kiln may be varied to suit circumstances. The following is a very cheap plan, and sufficient to dry one ton of roots at a time. Place four strong posts into the ground, twelve feet apart one way, and eighteen the other; the two front ones, fourteen feet high, and the other eighteen; put girths across the bottom, middle and top, and nail boards perpendicularly on the outside, as for a common barn. The

boards must be well seasoned, and all cracks or holes should be plastered or otherwise stopped up. Make a shed roof of common boards; in the inside put upright standards about five feet apart, with cross-pieces to support the scaffolding; the first cross-pieces to be four feet from the floor, the next two feet higher, and so on to the top. On these cross-pieces lay small poles about six feet long and two inches thick, four or five inches apart. On these scaffolds the madder is to be spread eight or nine inches thick. A floor is laid at the bottom, to keep all dry and clean. When the kiln is filled, take six or eight small kettles or hand furnaces, and place them four or five feet apart on the floor, (first securing it from fire with bricks or stones,) and make fires in them with charcoal, being careful not to make any of the fires so large as to scorch the madder over them. A person must be in constant attendance, to watch and replenish the fires; (but he should be cautioned not to remain long inside, as the gas from charcoal fires is liable to cause suffocation.)

The foregoing is Mr. Swift's mode of drying. He says, the heat from the small fires will ascend through the whole kiln, and dry the madder completely in ten or twelve hours. When sufficiently dried, the roots will be so brittle as to break like pipe-stems. It is probable that a good box stove, placed in the kiln, with a pipe passing up through the middle, and well supplied with hard wood fuel, would answer the purpose as well as the charcoal furnaces or kettles, while it would cause less risk from fire, and no danger to life or health.

Breaking and grinding.—Immediately after kiln-drying, the madder must be broken by threshing with flails, or passing through a bark mill or some other machine for the purpose, so as that it will feed in the stones of a common grist mill. The breaking and grinding must be done immediately after the kiln-drying, [say the next day after drying during the night,] else the roots will gather dampness from the atmosphere, sufficient to prevent grinding. But if broken and taken to the mill immediately after drying and during fine weather, there will be no difficulty in grinding the madder in any grist mill.

When ground, it should be packed in barrels like flour; then it is ready for market.

Additional remarks.—In a letter from Mr. Swift, received a few weeks since, he informs me that on a portion of his land the crop of madder harvested by him this fall, produced at the rate of 4,000 pounds per acre; but owing to injury done by the frost last spring, and by winter killing, the average per acre was not over 2,000 pounds. He does not intend to plant over three or four acres in any one year hereafter, owing to the difficulty in his neighborhood of procuring extra laborers at times when they are needed. Mr. S. offers to furnish roots for planting, to any person who may desire to engage in

the business of cultivating madder; price \$1.50 per bushel, when twenty-five bushels or over are taken, with no extra charge for casks or delivery at the port on Lake Erie. The best time for transporting them is in the fall; but early in the spring will answer. Address Joseph Swift, Birmingham, Erie Co., Ohio.

Messrs. Bateham & Eaton, at this place, [Columbus,] have three or four acres of madder now two years old, and they intend to plant as much more the coming spring. They also offer to furnish roots to any who may desire them, on the same terms as above stated. They can be sent by canal and Ohio river very early in the spring, to any place south or south-west.

M. B. BATEHAM,
Editor Cultivator.
Columbus, O., January, 1848.

Statement of the quantity and value of Madder imported into Boston, Philadelphia, and Baltimore, from 1st January, 1845, to the 30th September, 1847, and into New York, from 1st January 1845, to the 30th June, 1847; prepared from returns by collectors of those Districts.

From whence imported.	Quantity.	Value.
France on the Mediterranean,	8,098,200 lbs.	\$831,071
Holland, and via Buss and other ports,	5,961,950 "	490,864
England,	1,755,357 "	201,921
Belgium,	451,392 "	47,381
Sicily,	257,786 "	26,746
Turkey, 201 bales, estimated at	200,000 "	22,034
Spanish Atlantic ports, 21 bags, estimated at,	30,000 "	309
	16,804,715 lbs.	\$1,629,415

The Collector at New York could not, from the great pressure of business in his office, extend his return further than to the 30th June, 1847.

DANIEL GRAHAM, Register.

Treasury Department,
Register's Office, Oct. 20, 1847. }

Pork Making.

Mr. Ellsworth, formerly Commissioner of Patents, and now a large farmer in Indiana furnished an interesting communication, giving the results of experiments in pork-making, for the report which has just been issued, of which the following is an extract.

Raw food is, to the cooked food, as 68 to 103, making the gain, by cooking, about fifty-five per cent over uncooked food—or, three bushels of meal, cooked, is equal to four and a half bushels of dry, hard corn. It is generally estimated that if corn is cut up and fed to hogs, that fifteen bushels will fatten each one—that is give one hundred pounds of flesh. If hogs, at gross weight, should be worth \$3 per hundred, this would make corn worth just twenty cents per bushel. The hogs, in this case, were not confined in pens. If confined in pens, dry corn is worth thirty cents, and meal, cooked as above, is worth over fifty cents; so that there is a gain by grinding and cooking, over feeding in the field, of one hundred and fifty per cent.

A great error likewise has been committed in giving hogs too much age. At the West hogs average over twenty months, thus subjecting the owner to the expense of wintering; at this age their average is not two hundred and fifty pounds. More than half the fat made is run off by labor and travel; little food is allowed in winter, and less in the fall and spring, and the hogs have to work for a living. In many cases they get stunted, and never recover. It may here be mentioned that pig pork is worth more for domestic use or shipment to England and France, than pork from older hogs. Indeed, a pig should be kept constantly growing, and ought, (and will, if properly attended,) to increase one pound a day until killed, at ten or eleven months old, when he will weigh three hundred pounds if the breed is good. The doctrine that the breed is in the trough is not wholly correct—good hogs must be also fed, but there is as much (if not more) difference in hogs as in cattle as to taking on fat. I have some so much inclined to fatten that it is difficult to reduce them sufficiently for breeders, if they were placed even in common short pasture. Hogs to fatten best should not know what liberty is, they should have a warm dry bed—their feed at regular hours, and in sufficient quantities. As soon as the meal is over they then lie down and rest till the next feeding time comes round. Pushing hogs, however, only to those intended for early killing; if extraordinary weight is desired, pigs should not be confined too closely or be too highly fed for the first year; room and moderate exercise is favorable to the growth of bone and muscle. A pig that has been pampered for one year, will, if taken then, fall far below one of the same weight that has not been crowded if both are allowed the same diet afterwards.

I cannot omit to notice a fatal error among farmers in hazarding all by new crosses. Many of the first breeds in this and other sections of the country have been spoiled by mixtures with the Berkshire; for while a cross with the Berkshire and the Wood breed of hogs could not but improve the stock, an equal improvement has not followed in crossing the former with the improved kinds. When a good breed has been obtained it should be kept till there is a certainty of getting a better. Crosses often do not improve stock, the experiment should be first made with a few hogs. There is another important fact to be attended to. It is desirable to breed in and in, for one or two litters, until the breed becomes established. One cross may produce an improvement in the appearance of the pigs, but their progeny may partake fully of the male or female, neither of which is wanted. The great deterioration in hogs does not follow so much from breeding in and in as from injury to the male by excessive indulgence. The male should be kept up and not allowed more than one or two connections—if farmers would

be particular on this point, they will have better hogs, and also find that the number of boar pigs will be increased *fifty per cent*, such is the result of experiments in Europe as most fully tested.

Stock Raising at the West.—The following is an extract from the above mentioned letter of Mr. Ellsworth. His remarks apply with more force to some other sections of the West than to Michigan, at least a greater portion of it.

After a full consideration of the subject I am satisfied that stock raising at the West is much more profitable than growing small grain—indeed an examination of the present circumstances in the Northwestern States shows a vast difference in the wealth of the graziers over those who crop with grain. The profits of wheat appear well in expectation on paper, but this prospect is blasted by a severe winter, appearance of insects, a want of harvesting, bad weather in harvesting, in threshing, for there are few barns at the West, or transporting to market, and lastly, a fluctuation of the market itself. Some one of these is likely to happen, for very fortunate is that farmer who escapes them all. There is too, another very important fact to be noticed. Constant cropping of corn and small grain carried from the field will of course diminish gradually, at least, the fertility, and the farm is at length worn out. On the contrary, by feeding the crop on the land, the farm every year grows better.

Indurating Building Materials.—Among the extraordinary discoveries of the present day, by which materials of the most humble pretensions in works of art are rendered of the utmost utility—the most refractory substances made to bend to the power of scientific research, and many productions, which have for ages been thrown away as useless, brought into most extensive usefulness—we know of none by which a more extraordinary, not to say magical metamorphosis is effected, than the operation patented by Mr. William Hutchinson, by which plaster of Paris, Bath, Caen, and other soft stone, chalk, wood, pasteboard, and, in fact, any other material, is rendered hard as metal, receiving the most brilliant polish, and made absolutely imperishable from atmospheric action, vermin, &c. The purposes to which this patent can be applied are innumerable. The first idea of the patentee was the induration of the softer and more common, and almost useless stones for the purpose of paving; but so ample was his success, that he soon took a loftier view; and has rendered the operation, not only applicable to all common purposes for which stones and slates are used in building—such as paving, both internal and external, window sills, fittings of dairies, &c.—but now applies the operation to all the higher works of art. Plaster of Paris casts, of the

most elaborate designs, in busts, relieves, architectural ornaments, fonts, and ornamental flooring for churches, trellis work for balconies, ornamental inkstands, &c., are rendered imperishable by the operation of the elements, and hard and tough as metal. Sculptors who may so choose, may work in Bath or Caen stone, or even chalk, and the production will be rendered superior to marble, and in all these operations the finest edges of the cuttings are preserved, and not a chisel mark is lost.

In inspecting specimens of Mr. H.'s work, we were shown a slab, of soft sandstone, from Tonbridge Wells—so soft, that it might be rubbed into powder by the hand—rendered hard as granite, and rung like a bell; numerous plaster of Paris ornaments and busts, metamorphosed into bronze, granite, and parti-colored marbles—drain, water and gas pipes, made from Bath stone, chalk, or paper, hard as granite, and polished internally like marble; in fact, the results of the operations are most extraordinary. The water pipes, and prepared sheets for roofing, will be found most economical, both in first cost and in wear and tear; in fact, they can be rendered at a cost which comes far below any other description of material which has yet been introduced for these purposes; the sheets would also be highly applicable for railways, and many other public engineering uses.—[*London Mining Journal*.]

Cattle Poisoned by Cherry Leaves.—Leaves of the wild or cultivated cherry, also of the peach are poisonous to animals, and have caused the death of many. We hear of cases almost every year, which should be a caution to farmers. The leaves of these trees contain Prussic acid. This deadly poison is made from the Bitter Almond, and the almond and peach are so nearly allied that some authors regard them as identical, and they will grow on each other's stocks.

The leaves of the cherry and peach are far more poisonous after they have wilted, yet they have sometimes had some effect when animals have eaten them in the green state. Every farmer ought to be conversant with facts of so much importance. In a little work which we put out last year, the "American Veterinarian," which can be had for only fifty cents, is a chapter on poisons, that should be familiar to every one who keeps animals. In this case and many others, a single article that costs only a few cents, will often save a farmer five times as many dollars. A valuable animal is often lost for want of a little item of information that can be easily obtained. This work is published by J. P. Jewett & Co., 23 Cornhill, and though it has been before the public but a little more than a year the last edition making *twenty thousand* is nearly all sold. This or some other work on Veterinary Science, should be in the hands of every one who keeps animals.

We are led to make these remarks at this

time from having lately received a line from B. Bryant, Esq., Post Master, Chesterfield, Mass., stating that Mr. N. W. Ingram had lost two cows from eating the Dog Cherry after wilted. —*Boston Cultivator*.

A Prairie Car.—"Gen. Semple has been engaged in the vicinity of this place, for some two weeks past, in making experiments with the prairie car. Many of our citizens have witnessed the operations of the car, and have expressed their conviction of the complete success of the undertaking.

We understand that the car now used by Gen. Semple was never intended for business purposes, but was built merely to test the principle of the broad cylinder wheels on the prairie. The engine is not on springs, and consequently cannot be expected to make very great velocity, yet it has been run regularly at four to five miles an hour, carrying fifty passengers, and for several miles has run ten miles an hour. There is no doubt that a car properly constructed can be made to run at least ten miles an hour with perfect safety.

Going however, at five miles an hour, this car would make a trip to Alton in less time than the stage coaches. Fifty passengers would be more than five times as many as the coaches carry, while the expense of making the trips would not exceed that of the coaches.

Should all that is expected from the prairie car be realized, it is obvious that it will work important changes in the business operations in the State. The city of Springfield, situated at a distance from any navigable water course, is more interested in this matter than any other place. It is estimated that ten or twelve thousand dollars will be sufficient to put in operation a daily train from this city to Alton. This sum is completely within the control of Springfield alone. We think that our citizens, if convinced of the triumph of the experiment, cannot too soon turn their attention to this subject."—*Illinois State Register*.

Fumigating Plum Trees.—In the notice of a late horticultural meeting at Zanesville, Ohio, (reported in the *Gazette*,) it is stated that CALEB HALL presented fine specimens of plums, of which he has this year a good crop. He was formerly much annoyed by the curculio, but "in 1845 he fumigated his trees with brimstone, and repeated the operation in 1846, and both those years had good crops; for besides what his family used, he sold in market about \$20 worth per annum. In 1847 he did not use the brimstone, and did not, to use his own words 'get enough to make a pie.' In 1848, he again used the brimstone and has a fine crop. He says he gives the naked fact, without saying how far it may be made a perfect remedy for the evil." We know friend HALL to be a careful and intelligent cultivator: Will he be so good as to

furnish us with the particulars in regard to this matter? stating how often the trees were smoked, &c.—*Cultivator*.

Use of Cotton Cloth, in Curing Hay.—Dear Sir:—I take pleasure in replying to your inquiries about the "Hay Caps" made from your Salmon Falls Sheetings.* They have fully answered my expectations, preserving the hay perfectly, both through long rains and heavy showers; not only saving a great deal of labor in shaking the rain out of the hay, but preserving all its good qualities, especially that agreeable aromatic perfume, which is always lost when much wet.

I am indebted for the hint of this valuable improvement in haymaking, to a piece published in the *Boston Cultivator*, June 5, 1847, extracted from the *Maine Farmer*. Those there described were made of cloth thirty inches wide and were five feet square, which are too small. Those which I have made of your yard-wide sheetings, two yards square, are as near right as can be. The two breadths are sewed together with a stout hem at the ends, the corners turned back about two inches and sewed down strong, leaving a loop through which is run a stout string of the kind called marline, the ends tied so as to make a loop of an inch and a half in diameter; through each of these is run a stick of eighteen or twenty inches in length into the hay standing it up to prevent the loops from slipping off; the haycocks should be made higher than usual and the cloth drawn tight.

The cost is about thirty cents each, namely four yards of sheeting at seven cents, and two cents for line and thread; the making, if done at leisure hours in a family, will cost little or nothing.

Upon the whole, with the experience I have had of their usefulness, I would not be without them if the cost was double what it has been.

Yours truly, J. W. PIERCE. *Greenland, N. H., August 3, 1848.*

P. S.—I have waited several days to see the result of the last trial of the caps which we put on last Saturday afternoon—the weather at the time being very fine and promising well. We had about 350 cocks in the field; about 100 were not covered; on Monday it rained all day the next day, the hay that was not covered was opened, dried, and got in at night; that under the caps was left, being safe, to be got in at leisure; which was done the next day with as little labor as that of the day before, though nearly three times the quantity, and in much finer condition—indeed the rain had no effect upon it.

Appreciation of Agricultural Publications.—E. NEWTON, Esq., in his address before the Mahoning county, (O.) Agricultural Society, observes:—"Agricultural publications are the

* The sheetings weigh 2½ yards to a pound.

best and cheapest mode of obtaining information upon all subjects of husbandry. They cost but little, and are within the power of all. One good day's work will pay for one, and all have an abundance of time to read them. They contain the experience and observations of the most scientific farmers in the country; the prospects of crops in all countries, and the condition of the market; facts all important to be known and understood. I have been surprised to see how few are taken, and have often been told by farmers that they were not able to pay for them. I can hardly appreciate the remark. Every one is able to pay for that which will immediately return them an hundred fold. I believe that a single number of any of the publications, if thoroughly read, would be found to contain some fact, if adopted, that would more than pay for the full year. By raising an extra bushel of wheat, it would pay for the year."

Draining.—On the southern front of the mansion, contiguous to the lawn, there is a field of between 50 and 60 acres now well set in clover and orchard grass, from which a luxuriant crop was mowed this season, and a second crop is now growing. This field, a few years since, was a deep and almost impenetrable swamp, in which in the driest seasons, the cattle were mired, and not unfrequently, had to be pried out. This melioration was brought about by a series of open ditches and covered drains, which collect and vent the water at all times, and by which an unsightly and unwholesome quagmire has been converted into a fertile meadow, adapted alike to the growth of grass and to every other product of the farm.

The facility with which Mr. C. has demonstrated, how easy a matter it is to make sound, dry, arable soils, out of inaccessible marshes, is as notable as praiseworthy,—and it cannot fail, we should think, to stimulate hundreds of landed proprietors to reclaim lands of a similar character which they may have on their respective estates, and thereby enhance their value and secure their families against those autumnal diseases which make such inroads upon their constitutions and health.—*American Farmer*.

Tanner's Bark, Manure for Cherry Trees.—The editor of the *Boston Cultivator*, in a description of the farm of Messrs. A. D. Williams & Son, of Roxbury, gives the following account of that gentleman's management of Cherry Trees:

"Spent tan, fresh from the tannery, about a horse load to each tree, once in three or four years, is used for all cherry trees without exception, and it is regarded as the best manure, reviving old decaying trees, and giving a healthy rapid growth to those in their prime. This tan is spread under the tree, mostly around the trunk. As an evidence that its valuable effects are not

merely mechanical by retaining moisture, like any litter, on opening the tan the fibrous roots of the cherry are found penetrating the tan in every direction. Some coming directly up into the tan, where it is laid above the large roots of the tree. In some places where the winds have blown off some of the tan, numerous roots may be seen.

This opinion, so highly in favor of the use of tan as manure for the cherry, is given after many years experience and on many trees. The soil is a strong loam.

This valuable discovery was made by some ancestor in the family, who had dug out some rocks, leaving an unsightly spot, which he filled with spent tan, and earth, and some cherry trees came up there and grew with uncommon vigor. As tan, in its fresh state, is generally injurious to vegetation, we advise caution in its trial, lest the trees suffer by injudicious doses. We may use too much of a good thing."

Advantages of Draining Lands.—Sir John Sinclair, who is one among the best authorities, thus sums up the advantages of draining arable land:—

"When it is thoroughly drained, land can be plowed at any season with advantage—it is easily managed, and can be kept clean at a moderate expense,—every exertion of good husbandry is attended with success,—the ground suffers less from the inclemency of seasons,—the produce is generally ample,—the quality of the grain is excellent, and the farmer will thrive, where his predecessor, cultivating a wet and undrained soil, was impoverished or perhaps totally ruined."

Again, he says:—

"By the removal of stagnant water, and the prevention of noxious exhalations, the climate is rendered more healthy and genial, both to animal and vegetable life. Indeed, since the introduction of draining into this country, agues and other similar distempers, occasioned by the humidity of the soil, and the consequent impurity of the atmosphere, have been, in a great measure, prevented, and the general health of the inhabitants has been greatly improved."

Of WET LAND he remarks:—

"While land remains in a wet state, the manure laid upon it, whether putrescent or calcareous, is, comparatively speaking, of little use; the seed sown often perishes; the crops are sickly, and later of ripening; and the operations of harvest are perhaps attended with injury to the soil, uncertainty and danger."

Upon the application of manure to drained lands, he has this precaution:—

"Care in particular should be taken to render the lands dry before the application of lime, dung or compost, otherwise the attempt will be ineffectual."

Potatoes should be dug as soon as they are ripe.

MICHIGAN FARMER.**WARREN ISHAM, EDITOR.****PUBLISHED SEMI-MONTHLY—TERMS \$1
IN ADVANCE—FIVE COPIES FOR \$4.****To our Subscribers.**

We have now published the Farmer three quarters of a year, and during the whole time we have never uttered a syllable in the shape of a dun. There is now due a dollar and seventy-five cents from each one of our subscribers who has not paid. To all such we would say, that upon their paying two dollars within a reasonable time from the date of this notice, we will give them credit for two years, viz, for the current volume and the next—which will be only twenty-five cents more than is due for the former.

Trip to the Interior.

In a recent flying excursion to Oakland County, we were struck with agreeable surprise at the profusion of the fruits of the earth which every where met the eye. The wheat crop had been gathered, and in the region through which we passed, it was reported good. Last year, the crop was pretty generally cut off in this county by the insect, and farmers were very much discouraged, and when the destroyer commenced his ravages again last fall, threatening destruction to the hopes of the farmer for another year, there seemed to be almost the giving up of hope. Sad and sorrowful were the steps of the farmer then as he went to his daily toil. But far otherwise is the case with him now. Never did he wear a more cheerful aspect than at the present time, and never did he tread the little spot of earth which he calls his own, with a more buoyant step. A kind providence has relieved anxieties, and granted him, in despite of his fears, with slight exceptions, a bounteous harvest, and he has a fair prospect of disposing of his wheat crop at a remunerating price. Indeed the price of wheat is ranging higher than it has done for the past five years at this stage in the season.

It will doubtless be fresh in the recollection of the readers of the Farmer, that we have repeatedly forewarned them of the importance of deferring to put in their wheat until about the 20th of September, if they would have it secure from the depredations of the insect, for the very good reason, that its eggs are deposited, in this climate, previously to that time. And in ac-

cordance with this view of the subject, we have found, wherever we have been, that in every instance, in which the crop was injured by the insect, it was put in previous to the 20th, and in no instance did we find, that it was injured from that cause, when it was put in after that time. If put in by the 25th of September, it will come forward sufficiently to escape the insect in the spring, and the rust in summer.

The spring crops are abundant. Such a crop of oats has scarcely been known in the memory of "the oldest inhabitant." Corn is more than an average, and buckwheat has a very heavy growth. Potatoes are also abundant, but they are rotting beyond all precedent. Particularly just after those heavy rains, they were seized with this malady in its most malignant form. Potatoes which were dug in the morning, and appeared sound, would, in some instances, be rotten before night.

The hay crop, on upland meadows, and probably on the marshes, was rather light, but farmers in that region have seeded their lands to clover to such an extent, that, with the use of plaster, they have procured heavy crops, which will furnish the country with abundance of hay, somewhat damaged, to be sure, by the rains, but still not sufficiently, in the general, greatly to injure it.

And O what sights of fruit! Apples and peaches and pears, and plums, all in the richest and juiciest abundance, the curculio, and the borer to the contrary notwithstanding. Say not that Michigan is not a fruit country. Never was there a better. And it does one good to see to what an extent farmers have taken pains to procure fruit of a choice kind. There are whole neighborhoods, where there is scarcely a family but has a hundred or two bushels of peaches, and mostly of the best varieties. But of all the fruit yards which came under our observation, we saw none which excelled that of Rev. J. W. Ruggles, of Pontiac. It is worth going all the way from Detroit to see, to say nothing of the whole souled hospitality of "mine host."

And then, after seeing so many nice things, and getting snugly on board the cars, careering homewards, to be run off the track, and knocked into all sorts of shapes, O it was too bad! If they don't fix that rickety old road, we will do our best to fix it for them, so far as our feeble voice can be heard.

When shall it be?

Our obliging correspondent, to whom we are indebted for the interesting accounts we publish to day of the great fair at Buffalo, the greatest probably ever held on the American Continent, and also of the proceedings of the Pomological convention, winds up the former, by the important inquiry, "when will Michigan have her Agricultural Society?"

And echo answers, "when?" And all is silent as the tomb. What a sublime and interesting spectacle, to see the farmers of the great state of New York banding themselves together in one great fraternity, for purposes of mutual improvement! And is it possible, that so many from other less highly favored states, could have been there, to witness the benefits resulting from such an organization, and mingle in such a throng, and participate in such a scene, and yet catch not the spirit which animated it, and feel no desire to diffuse that spirit abroad through the entire population of their respective states? No, no, it is not possible, and as the precious fruit of that great gala day of New York, we shall expect to see an impulse given to the cause of agricultural improvement in every state there represented—an impulse which shall distinctly mark a new era in the great cause of agricultural reform.

We have spoken of reform, nor shall we take it back. And it is true, that agricultural reform, like every other, must have its champions and its foes, that it must make its way amid obloquy and reproach, amid the taunts and jeers of the ignorant and the prejudiced, and the listless apathy of the indifferent and the doubting. But its march is onward, and its triumph certain.

And has not the time for action in our own state, fully come? Is anything to be gained by delay? Nay, are we not suffering absolute loss! If we shall ever need anything of the kind, to awaken the spirit of improvement among us, do we not need it now? Will there ever be a better time? Already there are a number of county societies in the state, and these should be multiplied until every county of any considerable population, has its organization. This is important and indeed necessary, as subsidiary to the success of the state organization. Who will move in this matter? Will those who feel interested in the matter, and on whom will devolve the duty of taking the lead in the noble

enterprise, communicate their views on the subject through the Farmer?

Horticulture a Proper Pursuit for Clergymen.

There are many distinguished clergymen in our country, who are giving their attention to the science and practice of horticulture. And what can be more proper in itself; and what more congenial with the spirit of their sacred profession? To investigate the principles of the science, is but to enlarge their acquaintance with the wonderful in nature, and increase their veneration of its author. God has given them two books to study and take lessons from. One is the book of nature, and the other the book of revelation. The science of horticulture furnishes one of the most interesting leaves in the book of nature, and no man, of any moral sensibilities at all, can attain to a tolerable acquaintance with it, without being deeply impressed with a sense of the wonder-working agency of God.

And then the practice of horticulture, the labors of the garden, afford a delightful relaxation from the labors of the mind, as well as an invigorating exercise to the body.

And what can afford a more delightful retreat to a mind drooping with fatigue, than a well arranged and beautiful garden?

So far then from interfering with the duties of their high vocation, attention to this subject, only prepares them to enter upon the discharge of those duties with higher qualifications and renewed vigor. And at the same time that they abstract nothing from, but rather add to their usefulness in their own chosen and appropriate sphere, by giving a portion of their attention to this subject, they may thus contribute greatly to the stock of useful information, and exert an important agency in bringing about improvements which nearly concern the well-being and the happiness of the race. And nothing would be more delightful than to see all our clergymen so far interested in this subject, as to give to it the attention which it manifestly deserves at their hands.

We are gratified to see the articles which we have been giving our readers on agricultural chemistry so extensively copied into our most valued Eastern Exchanges. At the same time we have been mortified a little to see some

"mistakes of the printer" upon which our eye has casually fallen. But man is "born unto trouble," so we must make the best of it.

Important Experiments.

H. W. S. Cleaveland, of Burlington, N. J., has been making an experiment upon his vinery, which Mr. Downing thinks is of great consequence, being confident that it will prove an effectual remedy for both the rose bug and the curculio.

Mr. C. states, that in his vineyard culture, it has heretofore been his practice to plow three or four times in a season, between the rows, to bury the weeds. Last winter he conceived the plan of covering the ground with some substance which should prevent the growth of weeds, supercede the necessity of plowing, and afford shelter to the roots of vines, which, in the forest is given by the mat of leaves, with which the earth is covered, and from which he first took the hint. He collected shavings from the carpenter's shops, and raked the drift stuff from the river bank, consisting of reed grass, leaves and chips, for three miles; by which means he covered about a third part of his vineyard, three inches deep.

As the result, Mr. C. states, that, "the health and vigor of the vines in the part thus treated, is so far superior to the rest, that no one could fail to be struck with it at first sight, and the fruit is much more free from defects of all kinds." But one result followed which he did not hope for. His vineyard had, on previous years, been so infested with rose bugs, that he had to employ half a dozen boys almost constantly to destroy them; but, to his surprise, he found so few bugs on the part thus covered, that it was often unnecessary to hunt for them there, and what few there were, manifestly came from the uncovered portion of the vineyard. The thick mat covering the ground had evidently either prevented the transformation of the worm into the bug, or else the young bug was too weak to work its way up through. Mr. C. is confident, that a similar application will be an effectual remedy for the curculio, and intends to test the matter another season.

Wire Worms.—The Editor of the Boston Cultivator speaks of an experiment having been made which proved satisfactory, that two or three cobs deposited in a hill of corn, at planting, would prevent entirely the depredations of the wire worms, the pith of the cobs being found full of worms, while the corn was left unharmed, at the same time, that the corn in another portion of the same field, not so treated, was much damaged. Rolling the seed corn in flour of sulphur and then coating it over with plaster, has also proved effectual.

Remedy for the Rose Bug and Curculio.

R. Newton, of Worcester, Massachusetts, states that sprinkling dry ashes plentifully into all parts of the tree or shrub early in the morning, while the dew is on, and repeating it two or three times, never fails to save the fruit from the ravages of these pests. He speaks of the depredations of the rose bugs in that region as being confined to the cherry and the plum, and those of the curculio to the plum. The operation should be repeated afterwards, if necessary.

For the Michigan Farmer.

Reply to Mr. Johnson's Inquiries.

MR. EDITOR: In the Farmer of September 1st, I notice some queries from Mr. Johnson of Kalamazoo, with regard to the destruction of green lice on fruit trees. I would say that where the trees are large the easiest and cheapest method of destroying them, is by tobacco smoke. Place a few coals of fire in a common portable furnace, then throw a handful of damp tobacco stalks upon it, and place it on a barrel under and upon the windward side of the tree, keeping the tobacco moist, that it may not blaze and in half an hour the tree will be entirely clear of lice, ants &c.

Another method which I practice on shrubbery and small trees, is to dip the ends of the branches in warm soap suds; this destroys the insects at once.

With regard to the time and management of budding plums, cherries and peaches, it is now too late to bud either, except peaches. Peaches may be budded any time during September, if the trees continue to grow, and the bark to peel. Apricots and nectarines may be budded on peach stocks as late as peaches can be budded. Pears may be budded on quince stocks till the middle of September. As a full answer to the queries concerning budding and management will require a longer article than I have time to write at present, and as the time for budding most kind of trees is past for this season, I will close this article.

I should be very glad to see a portion of the Michigan Farmer devoted to Horticulture, and I hope the Editor will set apart a portion of it for that purpose, and that our Horticultural friends in the interior will fill that portion of its columns with either questions, answers, or essays upon Horticultural subjects.*

Detroit, Sept. 14, 1848.

J. C. H.

*Our columns will always be open to communications on the subject. Indeed it has been our intention to give a fair proportion of Horticultural intelligence, and we think, upon review, it will be found that we have done so hitherto. [Ed.]

For the Michigan Farmer.

Great Pomological Convention.

MR. EDITOR:—The Grand National Pomological convention, lately held at Buffalo was not only interesting and instructive, to those who were present, but one from which we hope to see many good fruits disseminated. The objects had in view by those who called the convention, were to bring together, from all parts of the Union and the Canadas, as large a number of Pomologists, with specimens of their fruits, as possible, that the fruits from the North and the South, the East and the West might be compared, thereby giving an opportunity to observe the effect of soil, climate, culture &c. upon the different varieties. Also to discuss the merits of fruits in order to class them, to name any new seedlings that might be presented, if the convention should consider them worthy of a name, correct the nomenclature, reject such fruits as they consider unworthy of cultivation &c.

The convention commenced its sessions on Friday, September 1st 1848. David Thomas of New York was elected President. One Vice President was appointed from each of the states represented, also one from Canada East and one from Canada West. The Secretaries appointed were Messrs. Doctor H. Wendall of Albany, W. R. Prince of New York, and C. N. Hovey of Boston. Messrs. Hodge, Elliott, Chas. Downing, Hancock, Barry, J. J. Thomas and Painter were appointed a committee on fruits.

Thus organized, the convention proceeded to business by introducing Plums. The Diamond plum, the first presented to the convention, was voted to be a third rate plum. The Washington was next presented and recommended as first rate in every particular.

After going through with the list of plums, peaches were next presented by the committee. Crawford's early melocoton was voted to be one of the best market varieties, although, its flavor is not equal to some other varieties. Pears were next introduced and the merits of many varieties fully discussed and passed upon, some being considered as first, some second, some third rate and others as unworthy of cultivation; apples were next taken and passed upon in like manner. It was found that many fruits which are first rate in some states, are hardly worthy of cultivation in others. The Steven's Genessee Pear, for instance was, after a short discussion,

voted to be a second rate variety; this vote was reconsidered, and after a full discussion of its merits in different localities, it was voted to be a first rate pear.

A committee consisting of Nelson of Fort Wayne, Doct. Wendall of Albany, Elliot of Cleveland, Dougal of Canada West, and Holmes of Detroit and Goodsell New, York were appointed a committee to take into consideration the expediency of holding future Pomological convention.

This committee reported, that they consider it expedient to hold future Pomological conventions, and that this convention shall be known by the name of the North American Pomological convention, and that its meeting in 1849 shall be at the place where the New York State Agricultural Society's fair shall be held, and its sessions to commence on the first day succeeding the close of the society's fair. This was adopted by the convention. The convention adjourned Monday at 4 P. M., when the fruits that had been spread out before the convention, were taken to the large tent erected for their reception at the grounds of the State Horticultural Society. J. C. H.

Will some one of our correspondents, who understands the matter, take up the pen in reply to "Emeline," and endeavor to obviate her difficulties.

For the Michigan Farmer.

MR. ISHAM:—Having much difficulty during the past month, in making butter, I take the liberty of inquiring through the Farmer, for a remedy. With the usual treatment of the milk the process of churning seems to have little effect. The cows have been taken from the meadow to pasture on the "fallow." Does that affect the milk, or is it the state of the atmosphere? If some dairyman, or experienced housewife, will have the kindness to inform me of the cause of this difficulty, and of the management it requires to remedy it,* they will receive my sincere thanks.

Churning half a day, for one-fourth the quantity of butter, and that of a very inferior quality, is too great a sacrifice of time to be endured silently. I acknowledge many valuable directions in your paper which I have applied to cheese-making.

EMELINE.

LITTLE PRAIRIE RONDE, August 23.

* If we understand the matter the difficulty in question, had not been experienced previous to the cows being transferred from the meadow to "the fallow."—Ed.

For the Michigan Farmer.

FAIR

Of the New York State Agricultural Society, held at Buffalo 5th, 6th and 7th of Sept. 1848.

Having given a short account of the Pomological convention held at Buffalo on the 1st, 2nd and 4th of September, I will now give a very short description of the Agricultural Fair. The place selected for the exhibition was a field on the north side of Delaware street, 2 miles from the centre of Buffalo. The whole area enclosed by a tight board fence, 9 feet high, was 16 acres.

Tuesday Morning, the first of the fair, was ushered in, with a violent rain storm from North-west, and the day bid fair to be anything but pleasant. At 9 A. M. the rain began to hold up and at 10 the sky was clear, rendering it more pleasant than if there had been no shower. At 7 A. M. I was in the large Horticultural tent, arranging the fruits by the Detroit Horticultural Society. Having attended to my duties here I took a stroll about the grounds to catch a hasty glance at the almost endless variety of objects presented for exhibition.

The grounds were laid out as follows :

r	h				
l	q	f		e	
	p	o	k		
					a
n	m	l	j	g	d
			i		d
	P	o			b
					c

A secretary's office, B treasurer's office, C carriage way, D foot passages, E and F carriage egress, G implement and machinery ground, 450 by 200 feet, H poultry and pigeon houses, 10 by 10, I mechanics Hall, 105 by 70 feet, J Dairy, grain and seed hall, 150 by 40 feet, K manufacturers hall, 150 by 70 feet, L horticultural tent, 120 by 80 feet, M horse parade, 200 feet diameter, N society's tent, 120 by 90 feet, O small tents for committees, &c., P refreshments for the public, Q swine pens, R sheep pens, S grove for cattle. Now enter this enclosure with me and examine a few of the articles deposited there, I say a few, for it would take a week or more to examine all minutely. In passing through the secretary's office into the grounds, the first thing we met with on the right, is a patent machine for making brick, passing

on a little further the sound of a bell attracts your attention, looking to the left you see a long line of bells, from the largest church bell to the smallest steamboat bell, and every person that has a very big ear for music, must in passing, give each a slap, in order to ring out the changes. Here are plows, mowing machines, hay cutters, and almost every sort of labor saving machine for the agriculturist. Now we will enter the mechanic's hall, and go down the passage on the left. Here we find all sorts ; we find this well filled with implements of husbandry, bee hives &c. Now return through the centre walk of the same building ; here we find a large assortment of carriages, from the lumber wagon, and the farmers buggy wagon, to the most splendid buggies and sleighs we have ever seen, next comes some of the most beautiful household furniture ever manufactured, such as chairs, ottomans, sofas, bedsteads, bureaus &c. Now go down the walk on the right of the same building ; the first that attracts your attention is a lot of immense cooking stoves for hotels, steamboats &c. The whole length of this side is filled with stoves of every shape, size and pattern. Now we will go to the dairy building, where we find stocks of butter, cheese &c. Next we enter the hall for miscellaneous articles. Entering at the south end, we find several elegant piano fortes, some of them discoursing sweet music to the utter amazement of the gaping bystanders. Here too are loads of fancy work, such as quilts, bags, rugs, cats, dogs, hens &c. We must hurry on, for we are not half through yet. Now we will go into the horticultural tent, enter at the north side ; the first objects on the left are fruits from Ohio. Next a splendid lot of apples, peaches &c. from Montreal, then another lot from Ohio, then last though by no means the least upon this side of the tent, comes the offering from Michigan and Canada West, over which waves the flag of the Detroit Horticultural Society. In the centre of Michigan's display of fruits, stands a beautiful moss vase, loaded with some of Michigan's finest fruits. This vase is the work of a Michigan lady and presented by her to the Detroit Horticultural Society. Now move on to the other side of the horticultural pavilion and you behold all that New York can do in the way of fruits. She has taken up the whole of one side of the tent, and put forth all her energies to eclipse all other states in her exhibit of fine fruits. I wish

the crowd in the tent was not quite so dense that I might run my eye along, first upon one side and then, the other, so as, at a glance to compare the two sides. I think New York would have to yield the palm to her sister states of the West. However this may be, we will not stop to discuss the question. But come and look at this immense temple which stands in the centre. The architecture is beautiful, the covering of moss and evergreens give it an elegant finish. The statuary within is also beautiful. Around and about this temple are placed some of Flora's choicest gifts, bouquets of every size, shape and hue meet the eye at every turn. Between the ranges of fruits and flowers, stand long lines of tables, bearing up immense loads of the finest vegetables.

Now we will pass out at the north side of the tent, and we have before us the horse parade. Here are some of the most beautiful horses I ever beheld. Here they are of every grade, from the heavy Norman draft horse, to the beautiful, light, slender race horse. Now take a trip through the grove at the lower end of the enclosure, here is a host of splendid specimens of fat cattle, working oxen, steers &c., as you pass on to the east you see a pen filled with shetland ponies from Amherstburgh C. W. Farther on are sheep, pigs &c.; then comes a long line of houses filled with poultry, rabbits, and singing birds.

Having gone the rounds of the enclosure, we will return. On the first day, none but members and delegates were admitted. On the second and third, all were admitted who would pay 12½ cents. Consequently the place was so crowded that none could examine or even get a glance at half the articles exhibited. When will Michigan get up her Agricultural Society?

DETROIT, Sept. 9th, 1848.

J. C. H.

For the Michigan Farmer.

Proper time of Sowing Wheat.

MR. EDITOR:—I acknowledge I have received considerable information from the Michigan Farmer, and I desire the prosperity of the paper, and I feel it a duty incumbent on me, to cast in my mite: although I feel my inability as an agricultural writer, still I desire to improve the talent committed to me.* I have been employed at farming all my life, and by close observation I have discovered things that may be of use to my fellow farmers. I have experi-

mented on the sowing of wheat, from August & September to October, and have observed, that wheat sown the last of August, or first of September, when the weather is very warm, will not properly vegetate, and the first blade will be subject to rust, which will give it an unhealthy appearance, from which I learn, that if sown when the weather is too warm, it will give it a sickly vegetation, which will be a great hindrance to the after growth of the crop. I make it a point to wait till the weather becomes frosty, if not until the 20th or 25th of September, and especially if sown on warm, sandy soils, when the insects are as plenty as they have been these last seasons. My wheat sown the 2nd of October last, done very well. If you think this worth inserting in your paper, do as you please.

W. C.

LIBERTY, Jackson Co. Mich.

* Well thought of. There are multitudes of others who have been burying their talents in the earth, and either sleeping over them in hardened indifference, or else, if they had any right feeling left, spending their lives in misery at the recollection of their neglect. How can a being so selfish, one who is content to be indebted continually to the information derived from the experience of others, while he bestows nothing in return,—how can such a being be otherwise than miserable? It is a law of God's universe, that all accountable beings shall be miserable in proportion as they are selfish, and *vice versa*.

We hope that others who may have hitherto slumbered over their responsibilities, or been made wretched under a sense of obligations undischarged, will be aroused from their lethargy, and pour into the columns of the Farmer as the common deposit, the rich funds of their experience for the common benefit. No farmer, who is not as stupid as the ox he drives, and as grovelling as the swine he feeds, can pass away ten years of his life in the business of his vocation, and learn nothing which would be useful to his brother farmers.

The experience of our correspondent, is confirmatory of the views we have repeatedly expressed in relation to the proper time of sowing wheat, with reference to the depredations of the insect. ED.

☞ The Editor of the Albany Cultivator says he has frequently seen pumpkins of the "seven years" variety, four or five years old!!

☞ Suppose some of our readers make an experiment upon a few rows of corn, to test the question, as to the injurious effect of topping the stalks.

NEW INVENTIONS.

Improvement in Milling.

The Belleville (N. B.) Intelligencer says:—"We have been informed that a great improvement has been made in the water wheel of a Flouring Mill. The experiment has been tried in Rawdon, in this District, in a mill belonging to Edward Fidler, Esq., and at present leased by Mr. Wm. Baker, through whose enterprise this new wheel was introduced into the District.—The mill has been built about two years, during which time it has been running with what is called "*Smith's Wheel*," and which would grind at most, ten bushels of wheat per hour, with about ten feet head of water. This appeared to be too slow work for the spirited Lessee, and accordingly he went to the States, and engaged the services of a Mr. Boyce, of Fulton, Oswego county, N. York, who has constructed and put in operation two "*New Centre Discharge Wheels*," which have performed wonders, such as were never, we are informed by those whose judgment in such matters is worthy of credit, before known in this country. Our informant says, that he saw 20 bushels of wheat weighed, put into the hopper, ground and bolted in 35 minutes, with one run of stone, and that there is not the slightest doubt, but that the mill will grind from 35 to 40 bushels per hour, on an average, with each run of stone. By the means of this new centre discharge wheel the mill will be able to grind 480 bushels of wheat in 12 hours, making 96 barrels of flour with each run of stone; while with the old wheel it could not have ground more than 120 bushels, making 24 barrels of flour; or, in other words, doing with the new wheel in one day, that which it would require four to do with the old one. If this is correct, and we have it from unimpeachable authority, Rawdon can now boast of possessing the fastest flouring mill in the province."

A Simple Invention.—The most profitable inventions, says the Transcript, have generally been the most simple if not the most obvious.

What could be more simple, for instance, than the balance handle knife—the idea of making the handle heavier than the blade, so that the latter may not fall upon the table when the knife is laid horizontally? And yet the English inventor has made an immense fortune out of his lucky thought. Gen. Mosely, of Kentucky, is likely to reap an equally ample pecuniary harvest from an idea hardly more complex. It is of an irregular piece of iron, or eccentric lever, no bigger than an ordinary castor to a table, which forms a perfect window fastener by which weights and pulleys may be dispensed with. The operation of it is certain as it is simple; and the expense of attaching it would be fifteen cents a window instead of three dollars, which is about the cost of one attaching the

present apparatus. Gen. Mosely has already received a large sum from this little contrivance—the plan of which he whittled out of a block of wood in about ten minutes.

Gutta Percha.—The indefinite variety of purposes to which this comparatively new material can be applied, as we have before observed, is truly astonishing. Walking sticks and riding whips, ornamental trays and inkstands, harness for horses, boots and shoes for men, women and children, gas and water piping, fire-engine and pump buckets, ladies' and gentleman's clogs, cords for fishing-lines, nets, &c., whip thongs, dog collars, driving straps for machinery without seam, thread for philosophical purposes, travelling cases, gig apron, sheeting for carriages, cords for window blinds, sashes, &c.; fine tubing for chemical purposes, ear trumpets, medallions and printing types, &c., are among the articles now composed of this material. Six patents have been taken out in relation to it. The term *Gutta Percha* is Malayan, *Gutta* meaning gum, and *Percha* the name of the tree from which it exudes.—*Farmer and Mechanic.*

Artificial Minerals and Precious Stones.—A process has been explained to the Paris Academy of Sciences, and a patent obtained for it, whereby *artificial stone* of every quality may be produced, from artificial granite to statuary marble.

This invention is, it is said, from its cheapness, a great advantage for all the purposes of architectural decoration, and from its plastic nature before it becomes hard, of great service to sculptors in taking casts of statues, busts, &c., and even of figures of the size of life. The cost in all cases, where carving is required in stone in which this composition is substituted, is less by nine-tenths. The invention is founded on the chemical analysis of the natural varieties of stone, and the manufacture is capable of such modifications as are requisite to produce all the varieties—"stones manufactured to order."

The artificial stone produced is less absorbent than natural stone, and is superior in compactness of texture, and will resist frost, damp, and the chemical acids. It is made of flints, and siliceous grit, sand, &c., rendered fluid by heat, and poured into moulds as required till cool and hardened. Its strength and solidity enable it to resist more blows than real stone.

Specimens of the invention have been forwarded to London, and their appearance is pronounced exceedingly curious. They consist of many varieties, some being plain pieces of coping stones for variegated pavements for halls and rooms, stone ornaments, such as mouldings for friezes, finials, and some more elaborate, having flowers and devices apparently cut with a chisel.

An invention for generating ice by artificial means, has just been discovered in London.

GENERAL INTELLIGENCE.

By Telegraph.

NEW YORK, Sept. 12—3 P. M.—A large block of buildings in the business part of Pottsville has been destroyed by fire. Loss about \$100,000.

The following despatch has been received from Mr. H. O'Reilly: "The whole New Orleans line of telegraph will be quickly finished. You will soon see the lightning flashing from your sea-board to New Orleans by our lines through the Mississippi Valley."

A train of cars from Washington ran off the track near Baltimore, on the 12th inst., smashing the engine and three cars to atoms. One man was killed, and several badly injured.

There is to be a National Convention of *Fruit-growers* and *Pomologists* at Judson's Hotel, New York, on the 10th of October next. The objects of the Convention are to compare fruits from various sources and localities with a view of arriving at correct conclusions as to their merits.

NEW YORK, September 13.—Dreadful hurricane at Saint Kitts. It lasted 5 hours with three shocks of an earthquake in the whole Island.—Most of the buildings thrown down and sugar cane prostrated. Loss of life is very great.

The schooner *Mary* foundered with all on board. A vessel at St. Martins lost with all her crew. The injured are more numerous than in the hurricane of '37 or the earthquake of 1542.

NEW ORLEANS, September 9, 3 P. M.—We have received Yucatan dates to the 27th. The whites have every where been successful. The Peninsula of Yucatan has re-united with Mexico. Mexico has offered full pardon to the Indians on condition of their ceasing hostilities.—Mexico is to pay Yucatan \$140,000. Accounts from Guatemala state that Gen. Canero has defeated the insurgents in a hard fought battle.

THE N. Y. FAIR—PREMIUMS, &c.—Among the premiums awarded by the State Fair at Buffalo, we notice one of \$10 and diploma to Messrs. Hubbard & Hastings of Michigan, for the best collection of winter Pears. J. C. Holmes of this city also received the premium for three bottles of current wine, made in 1846, '47 and '48. J. S. Boss of Pontiac received \$3 premium for the best sample of Timothy Seed.

Chief Justice Shaw, of Massachusetts, recently decided that a contract dated on a week day, but made and signed on the Sabbath, was null and void.

General Lane has been appointed Governor of Oregon. He is to proceed over the mountains, and if possible, reach Oregon this winter. Company C. have received orders to repair to Fort Leavenworth to accompany him.

There has been a great fire in Brooklyn, N. York, by which 300 buildings were consumed, many of them in the most important part of the city.

The cholera has reached Koningsberg, Prussia.

Receipts at the Fair—Number in Attendance.

The following are the receipts at the Fair:

Member's tickets,	\$1,700
Admission tickets—1st day,	3,144 34
“ “ 2d “	1,270 61

Total, \$6,114 95

The above is nearly correct, and it is thought that the amount will exceed this sum, on a recount.

From this some idea—though not very accurate—may be formed of the number who went upon the show grounds. The member's tickets probably admitted

ably admitted	8,000
Admission tickets,	35,320

43,320

The admission tickets, however, passed a large number of children, which, with those of whom no account was taken, being employed in various ways about the grounds, would swell the number to between 50,000 and 60,000.—*Buffalo Commercial*.

The Austrians, under Radetsky, have defeated Charles Albert and driven him from northern Italy.

Arrests of the leaders in the late insurrectionary movement in Ireland, are constantly being made in different parts of the Island.

We learn, says the Cincinnati Gazette, that a benevolent gentleman of Cincinnati offers to Mr. David Christy, Agent of the American Colonization Society, for Ohio, the sum of *two thousand dollars*, for the purchase of a portion of the African coast, outside the present limits of Liberia, to be paid as soon as the necessary arrangements can be made.

His design is to offer the territory to the colored people of Ohio, Indiana, and Illinois, for their acceptance, upon which to establish a *new state*, in connection with the Republic of Liberia.—The Agent at Washington, Rev. Wm. M'Lain, recommends that the purchase be made north west of Liberia, so as to include the Gallinas, and those other "darkest dens of the slave trade." This purchase would embrace the coast between the Republic and Sierra Leone, and forever banish the slave trade from that region.

The potatoe disease had developed itself in Ireland as well as in England and Scotland. A luxuriant field of this essential esculent becomes in twenty-four hours a withered and blackened mass. The pestilential effluvia, which salutes the passenger on the roadside indicates but too fatally the mischief underground.

Lots of Prisoners.—The French government have under their charge about ten thousand prisoners, arrested during the rebellion. There is some talk of sending them to the Marqueses and other islands of the Pacific.

The Mormon Temple.—The celebrated temple of the Mormons at Nauvoo has been sold for a Protestant college.

To our Subscribers.

We invite the special attention of those of our subscribers who have not paid their subscriptions for the present year (and they number three quarters of the whole) to the proposition we have made them under our editorial head. We have been very patient and waited long, knowing that it would be inconvenient for most of them to pay their subscriptions, until the time for disposing of their crops should arrive. That time, with some has already come, and with most it is near at hand, and we trust, that the inducements we offer, if not the interest they feel in sustaining a paper which is peculiarly *their own*, will not fail of a response. We have labored faithfully to give them a paper adapted to their wants, and from all quarters we have been cheered by the voice of approbation. But this alone will not suffice. We must have something more substantial. And to those who have been disposed to profit by the advantages they have enjoyed at our hands, any single number of the Farmer has been worth more than the pittance we demand.

We would remind our friends in the country of the approaching monthly fair of the Detroit Horticultural Society, to be held on the 26th and 27th of September. Great things are expected on that occasion. It will be a season of the year when a rich display of fruits may be made, and the conspicuous place which, as a state we occupied at the great fair at Buffalo, tells a fine story in favor of Michigan fruit.—It is to be hoped, that the effect of that unprecedented display of the fruits of American industry, will not be lost upon Michigan.—It is confidently expected that the approaching occasion will be one of surpassing interest. Much is expected from our friends in the country, and much of the interest of the occasion, will depend upon their contributions.

Sixty dollars are to be awarded in premiums.

We are glad to learn, that some of the enterprising farmers of Michigan were among the purchasers of the improved stock at the Buffalo Fair. Among others, Governor Ransom is said to have made a fine purchase. We should probably have had the pleasure of seeing it but for the fact, that the invitation which he extended to us, on his return, did not reach us, until after he had left the city.

The opportunity for making choice selections was probably never excelled at any previous exhibition of stock in our country. Our friend of the Prairie Farmer, remarked to us, on his return, that the display of stock, constituted the leading attraction of the Fair, there being six acres of cattle, many of them of the finest form,

and among them a hundred fat cattle, as fat as they could waddle, huge lumps of fat and flesh.

We are indebted to the indefatigable President of the Detroit Horticultural Society, J. C. Holmes Esq. for the interesting accounts of the Pomological convention and the great Agricultural Fair at Buffalo, which we publish to day.

The Peach Tree flourishes best with frequent trimmings.

TERMS.—The MICHIGAN FARMER is published at Detroit, twice a month, by WARREN ISHAM, at one dollar a year in advance—after three months \$1 25—after six months \$1 50—after nine months \$1 75. No subscription taken for less than one year, nor discontinued till all arrearages are paid. To clubs, five copies for four dollars. Office, on King's corner, third story.

Improved Railroad Portable Horse Powers, and Over-shot Threshing Machines and Separators.—Having sold upwards of seventy sets of the above celebrated machines the past season, and to many large farmers in this state, Vermont, Massachusetts, Michigan, Ohio, Illinois, Wisconsin, Canada, and with entire satisfaction in every case, the subscriber would call the particular attention of farmers and mechanics desiring such machines, before purchasing—as he is prepared to offer a better finished article, with some slight improvements, at a less price, than before—for full particulars, description, &c, see catalogue, furnished gratis at the warehouse, Number 10 and 12, Green street, Albany, or by mail to those desiring them. HORACE L. EMERY.

DETROIT SEED STORE AND AGRICULTURAL WAREHOUSE.—In compliance with the expressed wish of a great number of the intelligent and enterprising farmers of Michigan, the subscribers have established a seed store and agricultural warehouse at Detroit, at which will be kept constantly on hand, the choicest varieties of garden, field and flower seeds, obtained from such sources, that they feel no hesitation in recommending them to be of the very best quality. Also, Agricultural and Horticultural implements and labor-saving machines, such as are usually kept at the agricultural warehouses at the East, among which are Pratt's Patent corn-planter and seed drill, Pennock's patent drill (for drilling in wheat and other small grain,) Pitt's thrashing machine, improved harrow, improved cultivator, a great variety of plows, corn shellers, straw cutters and washing machines of the most approved kinds, together with Rich's Beehive, Montgolfier's Hydraulic Ram, Grant's Fanning Mill, Camwheel Churn, &c.

At Nos. 93 and 95 Woodward Avenue, nearly opposite the National Hotel.

F. F. PARKER & BROTHER.

DETROIT PRICE CURRENT.

Flour, bbl.	\$4 50	a \$4 62	Salt,	\$2 95	a \$1 50
Corn, bus.	a	40	Butter,	a	12 1/2
Oats,	a	35	Eggs, doz.	a	7
Rye,	a	42	Hides, lb.	3	a 6 1/2
Barley,	56	a	Wheat, bus.	a	85
Hogs, 100 lbs.	3 00	a 3 50	Hams, lb.	6	a 6 1/2
Apples, bush	25	a 0 5	Onions, bu.	41	a 50
Potatoes,		50	Cranberries,	a	1 25
Hay, ton,	8 00	a 10 00	Buckwheat 100 lbs.	1	50
Wool, lb.	14	a	Indian meal, "		1 00
Peas, bu,		a 75	Beef, do	3 50	a 4 50
Beans,	75	a	Lard, lb. retail,		7
Beef, bbl.	00	a 7 00	Honey.		10
Pork,	10 50	a 11 50	Apples, dried,		1 00
White fish,	6 00	a 7 00	Peaches, do		2 00
Trout,	5 50	a 6 50	Clover seed, bu.		4 50
Cod fish, lb.	5	a 5 1/2	Herd's grass do do		1 00
Cheese,	6	a 8	Flax do		75
Wood, cord,	2 25	a 2 50	Lime, " bbl		75

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